Accuracy of Social Perception: An Integration and Review of Meta-Analyses

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Abstract

This review examines the overall accuracy of social perception across several research topics and identifies factors that influence the accuracy of social perception. Findings from 14 meta-analyses examining topics such as social/personality judgments, health judgments, legal judgments, and academic/vocational judgments were obtained. Social perception accuracy was generally moderate, yielding an average effect size (*r*) of .32. However, individual meta-analytic effects varied widely, with some topics yielding small effects (e.g., lie detection, eyewitness identification) and other topics yielding large effects (e.g., educational judgments, health judgments). Several moderators of social perception accuracy were identified, including the nature of the information source, familiarity of the target, type of personality trait, and severity of the outcome being judged. These findings provide a comprehensive summary and novel integration of disparate findings on the accuracy of social perception. Concluding remarks highlight avenues for future research and call for cross-disciplinary collaborations that would enhance our understanding of social perception.

As social animals, people spend much of their daily life perceiving and interacting with others. For example, people regularly perceive the attitudes, abilities, dispositions, emotions, and group memberships of others using subtle cues communicated by them as well as indirect cues present in the surrounding environment (Fiske, 1993; Fiske & Taylor, 2013). Many of these social perceptions are of critical importance; people need to know their spouse's personality, their employer's tastes, and their neighbors' attitudes in order to interact effectively with them. Given the practical importance of accurate social perception, it seems reasonable to assume that people have the ability to perceive others accurately. But are people really that good at perceiving others? In this report, we define social perception as the process of perceiving, judging, and evaluating other people in order to form impressions and make inferences about them (Connelly & Ones, 2010; Jussim, 2012).

Numerous studies have examined the accuracy of social perception across a wide range of topic areas (see Hall & Bernieri, 2001; Zaki & Ochsner, 2011). For example, research has examined how accurately people perceive the personality and attitudes of their romantic partner (Fletcher & Kerr, 2010). Further, research has examined the accuracy of health diagnoses made by nurses (Mitchell & Kakkadasam, 2011), student evaluations made by teachers (Südkamp, Kaiser, & Möller, 2012), and judgments of criminal recidivism made by legal professionals (Hanson & Morton-Bourgon, 2009). As more and more individual studies emerged, researchers began to quantitatively aggregate findings using meta-analysis to estimate the overall accuracy of social perception in specific topic areas (e.g., emotion perception, eyewitness identification, judgments of vocational skill).

However, few efforts have been made to integrate research on the accuracy of social perception across these diverse topic areas. As of present, social perception research is scattered across

topics with little interaction between scholars of different research traditions. Along these lines, scholars in social psychology, educational psychology, psychology and law, management, and medicine have conducted research on the accuracy of social perception, yet there has been little communication among these scholars. Further, empirical papers conducted in some disciplines often do not cite or discuss related papers conducted by scholars in other disciplines. This narrow focus has been useful in establishing how people perceive others in specific topic areas (e.g., personality, emotions), but has neglected potential commonalities in social perception across topics as well as the broader question of how accurately people perceive others in general.

In the current report, therefore, we integrate and synthesize existing research on the accuracy of social perception. Specifically, we synthesize findings from over a dozen meta-analyses to examine the accuracy of social perception both within and across topic areas. Scholars have long argued that desires, stereotypes, and expectations contaminate social perception (see Balcetis & Lassiter, 2010; Fiske & Taylor, 2013). However, the degree to which social perception reflects these biasing influences versus true, objective features of the social world remains controversial (Jussim, 2012; Zaki & Ochsner, 2011). Thus, characterizing the overall accuracy of social perception is necessary to address ongoing debates regarding people's capacity to perceive the social world in an objective manner.

Further, by examining a broad range of findings, our analysis sought to uncover key moderators of social perception accuracy. That is, whereas prior work has identified factors that moderate social perception accuracy within a single topic area such as emotion perception (Elfenbein & Ambady, 2002) or personality judgment (Connelly & Ones, 2010), we examined whether there are factors that moderate social perception accuracy across multiple topic areas. Identifying moderators that affect accuracy across multiple contexts would corroborate the importance of these moderators and would suggest that a common set of factors influence social perception in various settings.

In short, our review synthesizes meta-analytic findings to evaluate the overall accuracy of social perception, the degree to which it varies by topic area, and whether there are common variables that moderate the accuracy of social perception across topic areas. By integrating a diverse array of findings, our report provides one of the most comprehensive reviews of research on the accuracy of social perception in the literature to date and may raise awareness of the interdisciplinary nature of social perception research. Beyond its theoretical importance, our analysis should also be of practical value. Specifically, knowledge of social perception accuracy and factors that influence accuracy could inform how people evaluate others in a variety of interpersonal settings (e.g., school and work).

In the pages that follow, we first synthesize meta-analytic findings on the accuracy of social perception. For organizational purposes, we cluster meta-analyses into one of four categories: social and personality judgments, legal judgments, academic and vocational judgments, or health judgments. These categories were selected because they represent traditional academic disciplines (e.g., social and personality psychology) as well as research networks in which social perception research has been conducted. Second, we evaluate potential moderators of social perception accuracy across topic areas. To facilitate integrative conclusions, our analysis focuses on moderators that were examined in at least two prior meta-analyses. Third, we discuss the major contributions of our research synthesis and identify gaps in the current literature that necessitate future research.

Literature search

The meta-analyses for this review were obtained through searches of computerized databases. We used sources including PsycInfo, Science Direct, EBSCO, and Google Scholar. The

following search terms were entered in combination with *meta-analysis*: *accuracy*, *social perception*, *perception of others*, *social judgment*, and *bias*. To qualify for inclusion, a meta-analysis had to provide (i) a measure of social perception such as perceptions of other people's personality, academic or vocational skill, deceptiveness, or mental health; (ii) an objective, external criterion that could be used to evaluate the accuracy of social perception; and (iii) an average effect size indexing the overall accuracy of social perception.

We excluded papers that examined the relation between social perception accuracy and other factors (e.g., training) as opposed to accuracy per se, as these reports did not provide the average effect size needed for our review (e.g., Andrzejewski, Hall, & Salib, 2009). We also excluded papers that focused on non-representative populations (e.g., people with severe developmental or psychological disorders) or children. Finally, a few meta-analyses were excluded because the samples they used overlapped almost completely with another meta-analysis we obtained, or because they were replaced by a newer meta-analysis on the same topic that incorporated a larger number of studies (see Cooper & Koenka, 2012; Zell, Krizan, & Teeter, 2015). We also performed a manual comparison of the references lists of our final set of meta-analyses to ensure independence. There were a few instances where meta-analyses shared studies, but in no case did the degree of overlap exceed 42%. Therefore, we retained both meta-analyses in each of these instances since the meta-analyses were primarily contributing unique data. As a result of this selection process, 14 meta-analyses were included in the present review (see Table 1); a list of excluded papers is provided in the Supplemental Materials.

Some meta-analyses provided effect size estimates using conventional measures such as r or d. For consistency, we converted effect sizes in the d metric to r using the standard formula. Other meta-analyses estimated the proportion of social perceptions that were made accurately versus inaccurately across studies. In these instances, we report the percentage values as they appeared in the original meta-analyses. Additionally, we provide corresponding effect size interpretations (r) for proportion outcomes using conventions outlined in previous research (see Randolph & Edmondson, 2005; Rosenthal & Rubin, 1982).

Table 1. Fourteen meta-analyses on the accuracy of social perception.

Reference	Category	k	r	n
Ambady & Rosenthal, 1992	Social/personality	38	.39	---
Bond & DePaulo, 2006	Social/personality	206	.06	24,483
Connelly & Ones, 2010	Social/personality	263	.30	44,178
Elfenbein & Ambady, 2002	Social/personality	182	.16	22,148
Fletcher & Kerr, 2010	Social/personality	98	.47	31,732
Tskhay & Rule, 2013	Social/personality	131	.29	6,448
Tskhay & Rule, 2014	Social/personality	286	.24	1,268
Mitchell & Kakkadasam, 2011	Health	22	.44	7,061
Mitchell, Meader, et al., 2011	Health	15	.59	15,277
Mitchell, Rao, et al., 2011	Health	32	.43	17,783
Hanson & Morton-Bourgon, 2009	Legal	27	.12	5,705
Sporer et al., 1995	Legal	30	.08	4,036
Bommer et al., 1995	Academic/vocational	50	.32	8,341
Südkamp et al., 2012	Academic/vocational	75	.63	38,873
TOTAL	---	1,455	.32	227,333

Note. k, number of effects incorporated into the meta-analysis; *r*, average effect size obtained in the meta-analysis; *n*, sample size for the meta-analysis. One meta-analysis did not provide sufficient information to determine sample size (Ambady & Rosenthal, 1992).

When papers reported more than one meta-analytic effect, we averaged these effects to derive one estimate of the accuracy of social perception in that topic area. Where possible, the present paper reports unweighted effect sizes as opposed to effect sizes weighted by study sample size. Unweighted models have been shown to perform as well or better than weighted models in previous meta-analyses (Bonett, 2008; Krizan, 2010; Shuster, 2010). We use standard conventions outlined by Cohen (1988) to interpret the magnitude of meta-analytic effects. Specifically, effect sizes (r) of .1, .3, and .5 are interpreted as small, medium, and large effects, respectively.

Accuracy of Social Perception

We begin our analysis by presenting the major findings of 14 meta-analyses on the accuracy of social perception. As indicated above, we clustered these meta-analyses into four primary topic areas (i.e., social and personality judgments, legal judgments, academic and vocational judgments, and health judgments), which represent the academic disciplines and research networks in which social perception research has been conducted. After presenting critical findings in each of these topic areas, we synthesize and integrate findings to derive broad conclusions about the accuracy of social perception across topic areas.

Social and personality judgments

We obtained seven meta-analyses examining the accuracy of social perception with regards to social and personality variables. These meta-analyses examined a variety of different topics of interest to social/personality psychologists including how accurately people perceive others with regards to personality traits, group membership, emotions, and deceptiveness as well as how accurately people perceive their romantic partners; such topics are considered foundational in social/personality psychology and are often discussed, albeit briefly, in textbooks summarizing these fields (e.g., Kassin, Fein, & Markus, 2014).

Along these lines, one meta-analysis examined the accuracy of big five personality judgments (i.e., openness, conscientiousness, extraversion, agreeableness, and neuroticism; Connelly & Ones, 2010). Accuracy of social perception was operationalized in three ways. First, when multiple raters judge a target, their ratings should correspond (i.e., inter-rater reliability). Second, ratings of a target should correspond with the target's self-ratings (i.e., self-other agreement). Third, ratings of a target should predict relevant behaviors of the target such as job performance or academic achievement (i.e., criterion-related validity). Overall, the accuracy of personality ratings when aggregating across the three different methods was moderate, as reflected by a medium effect of .30. Accuracy was somewhat lower when examining studies on criterion-related validity than studies on inter-rater reliability or self-other agreement, but relatively few studies examined criterion-related validity ($k = 7$).

A related meta-analysis examined how accurately people perceive the personality of unfamiliar targets after viewing the target's written text or personal website (e.g., Facebook, LinkedIn; Tskhay & Rule, 2014). Accuracy was determined by comparing social perceptions of personality with a criterion variable that consisted of both self and informant ratings of personality. When aggregating across the big five personality traits, the overall accuracy of personality perception was .24, which we interpret as a small to medium effect.

Moving to a different topic in social/personality psychology, a recent meta-analysis examined people's ability to categorize perceptually ambiguous groups using subtle nonverbal cues such as photographs, audio clips, and video clips (Tskhay & Rule, 2013). For example, this analysis aggregated studies that examined how accurately perceivers categorize Jews from non-Jews, Mormons from non-Mormons, and homosexuals from heterosexuals. Across studies, the

categorization of ambiguous groups was significantly more accurate than would be expected by chance. Specifically, judges were able to correctly identify approximately 64.5% of the targets, which corresponds to a medium effect (.29).

More broadly, a classic meta-analysis in social/personality psychology examined the accuracy of social perception after viewing thin slices of behavior (Ambady & Rosenthal, 1992). In relevant studies, participants observed brief segments of behavior (300 seconds or less) and then made one or more judgments about a target presented, including evaluations of the target's competence, expectations, affect, and deceptiveness. To assess accuracy, judgments based on thin slices were compared to behavioral criteria or expert judgment. Results showed that social perception from thin slices was accurate about 70% of the time, which corresponds to a medium to large effect of .39. Follow up tests showed that accuracy did not significantly differ when comparing different observation lengths (e.g., 30 seconds vs. 300 seconds).

Another highly cited meta-analysis in social/personality psychology examined the accuracy of emotion perception, a process considered fundamental to social interaction (Elfenbein & Ambady, 2002). Research in this area typically has people identify the emotion being expressed by a target person (e.g., happiness, sadness, surprise, fear, anger, or disgust) after exposure to stimuli presenting the target by voice, photograph, or video. Results showed that people were able to identify emotions at accuracy levels that exceeded chance ($M = 58\%$), corresponding to a small to medium effect of .16. Happiness was identified the most accurately (79%), whereas other primary emotions such as fear (58%) and disgust (61%) were identified less accurately, but still at levels that exceed chance. Contempt was identified with the lowest level of accuracy (41%).

The next meta-analysis we obtained on social/personality variables examined the accuracy of lie detection judgments, a topic that has generated substantial scientific and lay interest (Bond & DePaulo, 2006). Data were aggregated across studies in which participants were asked to classify whether speakers were telling the truth or lying. Lie detection judgments were significantly more accurate than would be expected by chance alone (53%); however, the overall effect was small (.06). Social perceivers were more accurate when judging honest (61%) as opposed to dishonest targets (47%), suggesting that dishonest statements are more difficult to identify than honest statements.

The final meta-analysis we obtained related to social/personality psychology examined the accuracy of judgments in heterosexual romantic relationships, which ranged from dating to marriage (Fletcher & Kerr, 2010). Specifically, this report examined how accurately people perceive their romantic partner with regards to a broad range of outcome variables including personality, attitudes, intentions, emotional states, as well as the level of relationship satisfaction one's partner experienced in the past and anticipates experiencing in the future. Accuracy was indexed by comparing judgments regarding partner attributes with self-reported attributes provided by the partner. When aggregating across the different outcome variables, accuracy of romantic partner perception was substantial, as reflected by a large effect of .47. Robust accuracy levels were obtained for each of the outcome measures, with the highest accuracy being obtained for memories of past relationship states (.62) and the lowest accuracy for predictions of future relationship states (.36).

Health judgments

We obtained three meta-analyses that examined the accuracy of social perception in health contexts; specifically, these papers examined the accuracy of diagnoses made by health professionals. First, a recent meta-analysis evaluated the ability of nurses to identify depression in primary and secondary care as well as nursing homes (Mitchell & Kakkadasam, 2011). Data were aggregated from settings in which the overall prevalence of major and minor depression was 28.1%. Nurse's

judgments of whether or not a patient had depression were compared with psychometrically validated scales (e.g., Beck Depression Inventory) and/or judgments made by mental health professionals. Depression judgments were accurate approximately 71.9% of the time, which yields a converted effect that is medium to large in size (.44). Nurses were far more likely to make accurate depression judgments when evaluating non-depressed patients (83.6% accuracy rate) than depressed patients (42.1% accuracy rate). Thus, identifying patients who were depressed was considerably more difficult than identifying patients who were non-depressed.

A related meta-analysis examined general practitioner's (i.e., physician's) ability to identify patients who were distressed and/or suffered from mild depression (Mitchell, Rao, & Vaze, 2011). The prevalence of distress in these settings was estimated to be 37.4%, and the prevalence of depression was estimated to be 10.6%. Physician judgments were compared with objective criteria consisting of self-report questionnaires (e.g., General Health Questionnaire) or judgments made by mental health professionals. Overall, the accuracy of social perceptions regarding distress and mild depression was relatively strong, as reflected by an average effect that was medium to large (.43). Judgments of depression were of comparable accuracy rates (75.6%) to judgments of distress (67.8%). However, as in other studies, accuracy was higher when identifying those who were not depressed or distressed (accuracy rates 80.6% and 79.4%) than those who were depressed or distressed (accuracy rates 33.8% and 48.4%). Therefore, although generally accurate in their judgments, both physicians and nurses often failed to identify patients who were suffering from mental health disturbances.

The third meta-analysis in the health domain that we obtained examined general practitioner's ability to identify patients experiencing dementia and cognitive impairment (Mitchell, Meader, & Pentzek, 2011). Data were aggregated from studies in which physician judgments were compared with the results of cognitive tests or expert judgments derived from interviews with patients. Across studies, the accuracy of social perceptions regarding dementia and cognitive impairment was relatively strong, as reflected by a large effect of .59. Judgments regarding cognitive impairment (86.4%) were somewhat more accurate than judgments regarding dementia (74.8%). For cognitive impairment, accuracy was higher when identifying those who did not have cognitive impairment (92.6%) than those who did have cognitive impairment (62.8%). For dementia, however, accuracy was comparable when identifying those who did not have dementia (75.5%) and those who did have dementia (73.4%).

Legal judgments

We obtained two meta-analyses that explored the accuracy of social perception in legal settings; specifically, these papers examined how accurately people perceive others who have or may have committed a crime. The first meta-analysis examined whether legal professionals could accurately predict whether or not convicted sexual offenders would commit additional crimes in the future, including sexual offenses, violent offenses, and other types of criminal behavior (i.e., judgments of criminal recidivism; Hanson & Morton-Bourgon, 2009). Experienced legal professionals (e.g., prosecutors) typically make recidivism judgments after viewing individual case files and receiving additional details about the defendant's criminal background during case conferences. Instances of criminal recidivism were obtained from criminal justice and law enforcement records, and the average follow-up period to assess recidivism was 70 months. Overall, the accuracy of recidivism judgments yielded a small effect of .12, suggesting relatively weak accuracy.

The second meta-analysis on legal judgments examined the accuracy of eyewitness identifications (Sporer, Penrod, Read, & Cutler, 1995). Accuracy was assessed by whether the perceiver correctly identified an offender presented in a lineup or correctly rejected lineups in which the offender was not presented. Across studies, eyewitness identifications were correct

about 54% of the time, which translates to a small effect of .08. Subsequent analyses showed a moderate relation between the accuracy of eyewitness identifications and perceiver confidence ($r = .29$). This finding suggests that people's confidence in the accuracy of their eyewitness identifications is an imperfect estimate of their actual accuracy.

Academic and vocational judgments

We obtained two meta-analyses examining the accuracy of academic and vocational judgments; these topics were integrated because both involved performance evaluations in hierarchical structures whereby people in leadership positions (i.e., teachers, supervisors) evaluated subordinates (i.e., students, employees). First, a recent meta-analysis examined whether teachers have accurate perceptions of the academic abilities of their students (Südkamp et al., 2012). Data were aggregated from studies that compared teacher ratings of student academic ability with objective measures of student achievement (e.g., performance on standardized tests) across a variety of school types, grade levels, and subject areas. Overall, teachers had highly accurate perceptions of their students' competence, as reflected by a large effect of .63.

Second, a related meta-analysis examined whether managers and supervisors have accurate perceptions of the vocational skill of their employees (Bommer, Johnson, Rich, Podsakoff, & MacKenzie, 1995). Specifically, this meta-analysis aggregated data from studies examining the correspondence between social perceptions of job performance and objective measures of job performance (i.e., quantifiable behaviors and outcomes) across a variety of different job types (e.g., salespersons, proofreaders). Social perceptions of vocational skill showed moderate accuracy levels (.32). Subsequent analyses showed that significantly better accuracy was achieved when supervisors rated performance quantity as opposed to quality.

Summary

In an effort to assess the accuracy of social perception across domains and contexts, we aggregated meta-analytic findings. The unweighted average of the 14 meta-analytic effects was an r of .32 ($SD = .18$), which would be considered a medium effect (see Table 2 for stem-and-leaf-display). These results suggest that social perception accuracy is generally moderate.[1] However, effects vary considerably across different topic areas, with effect sizes ranging from small to large depending on the research topic.

As a first step in understanding some of this variation, we examined whether social perception accuracy fluctuated across the four research domains studied in prior research by averaging effect sizes within each research domain. Relatively high accuracy levels were observed in research on

Table 2. Stem and leaf display for 14 social perception meta-analyses.

Stem	Leaf
.6	3
.5	9
.4	3 4 7
.3	0 2 9
.2	4 9
.1	2 6
.0	6 8

Note. Values represent average effects sizes (*r*).

health judgments (.49) as well as research on academic/vocational judgments (.48). Moderate accuracy levels were observed in research on social/personality judgments (.27). Finally, relatively low accuracy levels were observed when examining research on legal judgments (.10).[2]

   Although we can only speculate, it's possible that academic/vocational and health judgments are more accurate than judgments in other areas for several reasons. First, academic/vocational and health judgments often involve evaluations made by experts with considerable training and experience in the performance domain (i.e., physicians, teachers, and employers). Expertise may facilitate accurate social perception in some contexts, but this effect does not always occur for lie detection (Bond & DePaulo, 2006). Second, academic/vocational and health judgments are based on easily identified and readily available behavioral criteria, whereas judgments in other areas may require the detection of ambiguous behavioral cues. For example, teachers often have several types of information that they can use to evaluate student learning including quizzes, oral presentations, and written work, in addition to whether the student is excelling or struggling in other courses. Third, given the tangible consequences of accurate academic/vocational and health judgments, perceivers may have greater motivation to perceive others accurately in these domains than in some other domains such as social/personality judgments. The greater sense of involvement and accountability that comes with consequential judgments may enhance social perception accuracy (Tetlock & Kim, 1987).

Moderators of Social Perception Accuracy

Prior meta-analyses have evaluated factors that moderate the accuracy of social perception within specific topic areas. Going further, we evaluated factors that moderate the accuracy of social perception across topic areas. In this effort, we recorded the nature and outcome of the moderation tests for each meta-analysis included in our review. Given our interest in broad (i.e., cross-topic) conclusions, we only present results for moderator variables that were examined in multiple (i.e., at least 2) meta-analyses. Our analysis focuses on whether or not prior meta-analyses obtained a significant moderation effect for each variable (see Table 3). This approach was deemed more appropriate than quantitative aggregation of moderation effects (e.g., Zell & Krizan, 2014), since the moderator variables examined in the present meta-analyses often involved substantively related variables that were assessed using different methodological

Table 3. Potential moderators of social perception accuracy.

Moderator	Meta-analysis													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Information source			*	*	ns								ns	ns
Target familiarity			*	*	*	ns								
Rating specificity		ns					*					ns		
Rating scale		*										ns		
Personality dimension					*									*
Outcome severity									*	*				

Note.
*significant moderation effect; ns, non-significant moderation effect. [1]Ambady & Rosenthal, 1992; [2]Bommer et al., 1995; [3]Bond & DePaulo, 2006; [4]Connelly & Ones, 2010; [5]Elfenbein & Ambady, 2002; [6]Fletcher & Kerr, 2010; [7]Hanson & Morton-Bourgon, 2009; [8]Mitchell & Kakkadasam, 2011; [9]Mitchell, Meader, et al., 2011; [10]Mitchell, Rao, et al., 2011; [11]Sporer et al., 1995; [12]Südkamp et al., 2012; [13]Tskhay & Rule, 2013; [14]Tskhay & Rule, 2014.

approaches. We relied on the authors' original coding of studies in all moderation tests, rather than recoding the primary studies ourselves. For organizational purposes, we present moderators that were studied by a larger number of meta-analyses before those that were studied by fewer meta-analyses.

Information source

A key issue in social perception research is whether target persons are presented using visual stimuli, auditory stimuli, or written text. Five of the meta-analyses we obtained examined whether social perception accuracy varies by type of information source. Two of these meta-analyses found a significant moderation effect. Along these lines, lie detection judgments were found to be more accurate when target persons were presented in audio-only or audio-visual sources than video-only sources (Bond & DePaulo, 2006). Further, accuracy of personality judgments was higher when examining judgments derived from audio-visual sources and lowest when deriving from text-based sources in comparison to visual-only or audio-only sources (Connelly & Ones, 2010).

Conversely, three meta-analyses did not find a significant effect of information source. That is, research on emotion perception did not find significant differences in accuracy when comparing different information channels (i.e., video-only, audio-only, audio-visual); however, emotions were detected with slightly better accuracy when stimuli were presented via static channels such as pictures than dynamic channels such as video (Elfenbein & Ambady, 2002). In addition, research on personality perception from websites did not find significant differences in accuracy rates when comparing text-only websites with websites that included both text and personal photographs (Tskhay & Rule, 2014). Finally, research on the perception of ambiguous groups did not find a significant moderation effect when comparing accuracy rates across audio, video, and audio-visual sources (Tskhay & Rule, 2013).

In sum, findings are presently mixed with regards to whether the information source matters for social perception accuracy. Future research is needed to further explore the conditions under which audio-visual sources are superior to other sources, and it's possible that the quality and fidelity of the information source interacts with other factors (e.g., research topic) in determining social perception accuracy.

Target familiarity

A critical factor that varies across social perception contexts is the familiarity of the social perception target. In some contexts, people judge strangers who are unfamiliar, but in other contexts people judge familiar others such as their romantic partners, family, and friends. It seems reasonable to assume that the accuracy of social perception might be higher when judging familiar others, since perceivers have spent more time with familiar targets, allowing them to better identify cues that signal the target's thoughts, feelings, and behavioral tendencies (Brambilla, Riva, & Rule, 2013; Kenny, 1994). Further, perceivers may have greater motivation to perceive familiar others accurately, as interactions with familiar others may typically be of greater consequence than interactions with passing strangers.

Meta-analytic findings are broadly consistent with the argument that target familiarity increases social perception accuracy. Along these lines, research has found that personality perceptions are more accurate when people rate their friends and family members than when they rate casual acquaintances and strangers (Connelly & Ones, 2010). In addition, people are better at detecting lies when judging familiar targets than novel targets who are completely unfamiliar (Bond & DePaulo, 2006). Finally, people are better at detecting emotions when judging ingroup members (i.e., people from the same national, ethnic or regional group) than outgroup

members, and this ingroup advantage is reduced as people become more familiar with outgroups (Elfenbein & Ambady, 2002).

In sum, findings from multiple research topics are broadly consistent with the argument that accuracy of social perception is higher for familiar than unfamiliar targets. Interestingly, however, relationship duration (which ranged from 1-year to 44-years across samples) did not significantly moderate the accuracy of intimate partner perception (Fletcher & Kerr, 2010). This finding suggests that once people establish a sufficient level of familiarity, additional interactions with a target over time may yield diminishing returns for social perception accuracy.

Rating specificity

One methodological factor that should be considered in the study of social perception accuracy is the specificity of the judgment people make regarding others. That is, differences in accuracy may emerge when comparing abstract judgments (e.g., ratings of overall competence) to specific judgments (e.g., ratings of verbal reasoning ability). According to previous research, specific attitudes and self-perceptions correlate more strongly with behavioral outcomes than more general attitudes and self-perceptions that are not matched to the particular context (Glasman & Albarracín, 2006; Zell & Krizan, 2014). By this logic, social perceptions should show better accuracy when they are high rather than low in specificity.

Meta-analytic evidence obtained in the current study provided mixed support for the role of rating specificity in social perception accuracy. In favor of the specificity hypothesis, judgments of criminal recidivism were substantially more accurate when legal professionals estimated whether a sex offender would commit future sexual crimes than any type of crime (.42 versus .11; Hanson & Morton-Bourgon, 2009). However, studies on workplace evaluations found that supervisor evaluations did not significantly differ in accuracy when made using a single, global measure of performance than a composite of specific performance evaluations (Bommer et al., 1995). Similarly, teacher evaluations of students did not significantly differ in accuracy when comparing judgments of specific academic abilities to global judgments of academic ability (Südkamp et al., 2012). Nonetheless, specific student evaluations were more accurate than broad evaluations when performance outcomes measured specific abilities (e.g., language skills) rather than global abilities. This finding suggests that the match between the judgment and performance domain may be more important than rating specificity per se. Thus, specific evaluations may be more accurate only when outcome measures are also specific.

Rating scale

In assessing social perceptions of ability and competence, researchers can elect to use absolute scales where targets are evaluated independent of their peers (e.g., How would you rate Jane's intelligence?) or relative scales where targets are rated in comparison to relevant peers (e.g., How would you rate Jane's intelligence relative to other students at her school?). Some research suggests that judgments made using relative scales should yield better accuracy than absolute scales (Goffin & Olson, 2011); yet, other research suggests that there should be little difference between these two types of measures since people often interpret relative scales in an absolute manner (Klar & Giladi, 1999).

Data obtained in our report were mixed with regards to the merits of relative versus absolute scales. On the one hand, meta-analytic findings show that the accuracy of employee evaluations is higher when supervisors make evaluations using relative as opposed to absolute rating scales (Bommer et al., 1995). On the other hand, meta-analytic findings also show that the accuracy of student evaluations is not higher when teachers make evaluations using relative as opposed to absolute rating scales (Südkamp et al., 2012). The discrepancy in these results may in part be

attributed to the different types of information available in academic versus vocational settings. Along these lines, teachers typically evaluate numerous students who are all at the same point in their training using standardized achievement tests. Thus, teachers may use comparative information (i.e., how students are performing in comparison to their peers) even when making absolute judgments. Conversely, supervisors typically evaluate workers who are at different stages of their career and typically there are no standardized achievement tests available to evaluate workers' performance. Thus, given the lack of clear social comparison information, employers may use different standards when evaluating employees using absolute and comparative scales.

Personality dimension

Theorists have proposed that some personality dimensions are perceived with greater accuracy than others (Funder, 1995; Human & Biesanz, 2013; Vazire, 2010). In particular, high visibility traits that manifest in observed behavior should be perceived with greater accuracy than low visibility traits. Extraversion is considered the most visible trait in the big five, as it tends to manifest in easily identifiable behaviors such as social interest, dominance, and relatively high energy levels. Consistent with this argument, meta-analytic findings suggest that extraversion is perceived with greater accuracy than other big five traits (Connelly & Ones, 2010; Tskhay & Rule, 2014). The second highest accuracy rates were obtained in ratings of conscientiousness; ratings of openness, agreeableness, and neuroticism were largely comparable when examining findings across meta-analyses.

Outcome severity

Researchers in health sciences have been interested in assessing whether medical professionals are better at identifying extreme than mild health conditions, since extreme conditions might present more obvious symptoms. Consistent with this possibility, physicians show better accuracy in dementia identifications when patients evidence moderate-to-severe symptoms than mild symptoms (Mitchell, Meader, et al., 2011). Similarly, physicians show better accuracy in depression identifications when patients evidence moderate-to-severe symptoms than mild symptoms (Mitchell, Rao, et al., 2011). Despite being obtained in a completely different research context, these findings provide further support for the importance of visibility in social perception accuracy (Funder, 1995; Vazire, 2010). Just as visible personality traits are judged with better accuracy, health conditions with visible symptoms are also judged with better accuracy. Nonetheless, it is important to note that severe outcomes are not always more visible; for example, extreme mental illness that precipitates school shootings is not always visible to social perceivers before these heinous events occur.

Conclusions, Limitations, and Future Directions

Going beyond prior reviews that focused on the accuracy of social perception within specific topic areas, our review evaluated the accuracy of social perception across multiple topics and academic disciplines. More specifically, we synthesized 14 meta-analyses on the accuracy of social perception and evaluated factors that moderate the accuracy of social perception. Overall, we found that social perception accuracy is generally moderate; however, accuracy varied substantially across topic areas. Further, several factors moderated social perception accuracy across topics including the nature of the of the information source, familiarity of the target, specificity, and type of rating scale used to measure social perception, as well as the type of personality dimension and severity of the outcome being judged. Altogether, our analysis represents a novel integration of an enormous collection of empirical findings and therefore uniquely contributes

to our understanding of the nature of social perception accuracy and its capacity for improvement (see also Hall & Bernieri, 2001; Jussim, 2012; Zaki & Ochsner, 2011).

An important strength of our analysis was its broad approach, which allowed for general conclusions about the accuracy of social perception across domains. However, a limitation of this approach was that it required the amalgamation of research obtained using different methodological and statistical approaches. Future study is needed to further explore the extent to which differences in social perception accuracy across research domains (e.g., educational judgments, lie detection judgments) are attributable to substantive differences between domains as well as differences in methodological and statistical factors. Further, it is important to note that our conclusions are limited by an analysis of only 14 meta-analyses. We believe that 14 meta-analyses is sufficient to begin understanding the accuracy of social perception across domains, but future estimates based on a larger number of meta-analyses will yield more reliable conclusions.

Another contribution of our report was the identification of moderators. However, our moderation analyses were limited by a test of whether or not particular moderators yielded statistically significant effects. Now that a common set of moderators have been identified, we hope that future research will test these moderators in a more standardized fashion to facilitate quantitative aggregation of moderation effects in future analyses. Moreover, future study is needed to identify other moderators of social perception accuracy across domains. For example, future study should explore whether motivational factors (e.g., domain importance, incentives) affect social perception accuracy. Additionally, future work should examine whether the accuracy of social perception fluctuates as a function of the type of external criterion (e.g., self-reports, expert judgments, objective tests).[3] As more data on mechanisms and moderators accumulate, an important task for future work will be to develop integrative theoretical frameworks that explain social perception accuracy across domains.

By surveying the current state of the literature on social perception accuracy, we also identified the need for future meta-analyses. For example, three of the meta-analyses we obtained were conducted nearly 20 years ago. New meta-analyses could update these reports with a larger pool of data and more sophisticated statistical approaches. Social perception accuracy has been a popular research topic over the last few decades (Jussim, 2012; Zaki & Ochsner, 2011); hundreds of new studies are likely waiting to be accumulated in future meta-analyses. Further, existing meta-analyses on health judgment have so far only focused on distress, depression, and cognitive impairment. Future meta-analyses are needed to examine the accuracy of social perception with regards to other mental and physical health outcomes.

Finally, a unique contribution of the current report was its integration of findings across research domains that have so far been largely independent from one another. That is, although researchers in a variety of disciplines (e.g., psychology, criminology, health sciences, education, management) have been conducting research on the accuracy of social perception, there has been little communication between scholars across these areas. It is our hope that the current report serves as a bridge between scholars of different specialty areas and that it spurs productive collaborations across areas to advance our understanding of the accuracy of social perception. Despite decades of scholarship, there are still many unanswered questions with regards to the accuracy of social perception. This research area should see many exciting developments in the future as we come to a better understanding of how accurately people perceive those around them.

Short Biographies

Christa Nater is a graduate student at the Institute of Psychology at the University of Bern, Switzerland, where she is supervised by Sabine Sczesny, Professor of Social Psychology. Her

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Notes

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[1] The overall effect was comparable, but slightly weaker, after weighting individual meta-analytic effects by the number of studies (*k*) that contributed to them ($r = .27$).

[2] Effect sizes also varied within individual meta-analyses. That is, meta-analytic effects were significantly heterogeneous in 11 of the 14 meta-analyses we obtained. This finding suggests further that accuracy of social perception varies by context.

[3] Surprisingly, none of the meta-analyses that we obtained conducted significance tests to evaluate whether social perception accuracy varied as a function of the type of external criterion.

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